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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,265	09/29/2003	Kevin Brown	SVL920030045US1	4880

47069 7590 03/24/2006

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EXAMINER

TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
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2167

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/675,265	Applicant(s) BROWN ET AL.	
	Examiner Robert M. Timblin	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to application 10/675,265 filed 9/29/2003.

Claims 1-39 have been examined and are pending prosecution.

Information Disclosure Statement

The information disclosure is objected to for the following informalities: examiner suggests citation numbers 2, 5, 6, and 7 on sheet 2 of the IDS be placed under U.S. PATENT DOCUMENTS SECTION. Similarly, it is suggested citation number 3 on sheet 2 of the IDS to be placed under FOREIGN PATENT DOCUMENTS section.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-39 are rejected under 35 U.S.C. 102(b) as being anticipated by **Krishna** (US Patent 5,412,804).

With respect to claims 1, 14, and 27, **Krishna** teaches A method for processing predicates in an iterator function, comprising: when an iterator function included in a statement is invoked,

'obtaining one or more predicates included in the statement' as query is parsed (fig. 3) to produce query node (fig. 4) that includes a predicate and related information (col. 6 line 26-col. 7 line 23). Predicate obtaining is further described in fig. 5, element 102 (col. 8, lines 38-47).

'applying the one or more predicates to a row of data' as testing a predicate against rows of relations (col. 7, lines 19-23).

'if applying the one or more predicates results in a match, returning the row of data' as the predicate is tested against the rows (col. 10, lines 47-50). If predicate evaluation is true, the row is processed (col. 10, lines 47-52, and fig. 8).

'if applying the one or more predicates does not result in a match, searching for another row of data for which application of the one or more predicates results in a match' as execution continues until either a match is found or all rows have been scanned (col. 11, lines 20-27, and fig. 8).

With respect to claims 2 15, and 28, Krishna teaches **obtaining a qualification descriptor that describes the one or more predicates and one or more functions** (fig. 4)

With respect to claims 3, 16, and 29, Krishna teaches **'each function is used to process one of the predicates'** as aggregate functions (col. 7, lines 15-23, and fig. 4).

With respect to claims 4, 17, and 30, **Krishna** teaches **'a simple predicate'** (col. 7, line 57-col. 8, line 5).

With respect to claims 5, 18, and 31, **Krishna** teaches **'returning the row of data to the data store engine'** as a new relation is formed (col. 9, lines 39-51).

With respect to claims 6, 19, and 32, **Krishna** teaches A method for processing predicates, comprising:

receiving a statement including an iterator function and one or more predicates' as a query that specifies a predicate (col. 6 line 66-col. 7, line5).

creating a qualification descriptor that describes the one or more predicates and one or more functions that are to be used to evaluate the one or more predicates' as a query node (fig. 4).

invoking the iterator function one or more times, until receiving a done indicator from the iterator function' as tuple iteration (col. 10, lines 1-5).

With respect to claims 7, 20, and 33, **Krishna** teaches **'the qualification descriptor provides a handle to each of the one or more functions'** (col. 7, lines 12-23).

With respect to claims, 8, 21, and 30 **Krishna** teaches **'receiving an indication from the iterator function indicating whether the one or more predicates were**

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applied by the iterator function' as testing predicate to be true (col. 10, lines 47-52 and fig. 8 step 172).

With respect to claims 9, 22, and 35, **Krishna** teaches **'when the iterator function is invoked, receiving a row of data from the iterator function that matches the qualification of the one or more predicates'** (col. 11, lines 27-30).

With respect to claims 10, 23, and 36, **Krishna** teaches **'applying one or more additional predicates to the received row of data'** as application to tuples (col. 3, lines 25-28).

'the one or more additional predicates refer to a column of data that is not in a result set generated by the iterator function' as any column not included in the aggregate list (col. 11 lines 8-26).

With respect to claims 11, 24, and 37, **Krishna** teaches **'the one or more additional predicates performs a join between two tables'** as joining tables by applying a predicate (col. 1, lines 40-45).

With respect to claims 12, 25, and 38, the limitations of these claims are rejected for the same reasons in view of **Krishna** as those applying to claims 1 and 6 above

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With respect to claim 13, 26, and 39, **Krishna** teaches '**one or more simple predicates to be applied by the iterator function processor**' (col. 7, line 57-col. 8, line 5).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 6,775,662 B1 issued to **Witkowski et al.** on 8/10/2004. The subject matter disclosed therein is pertinent to that of claims 1-39 (i.e. qualifying pattern).

U.S. 6,345,266 B1 issued to **Ganguly et al.** issued 2/5/2002. The subject matter disclosed therein is pertinent to that of claims 1-39 (i.e. predicate processing).

U.S. 2001/0007987 A1 filed by **Igata** on 11/30/2000. The subject matter disclosed therein is pertinent to that of claims 1-39 (i.e. query processing).


Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Leslie Wong
Primary Examiner

Robert M. Timblin

Patent Examiner AU-2167

RMT
3/15/2006